

REMARKS

Applicant respectfully request entry of the Amendment and reconsideration of the outstanding rejections of the claims. Claim 5 has been canceled without prejudice. Claims 14 and 15 have been amended. Accordingly, claims 1-4, and 9-18 are pending after entry of the Amendment.

Applicant submits the claim amendments are supported throughout the application and do not raise any issues of new matter.

The Examiner has indicated claims 1-4 and 9-13 are allowable.

Claim Rejections Under § 35 U.S.C. 112

The Examiner rejected claim 14 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner stated that there is insufficient antecedent basis for the limitation "The pharmaceutical composition".

Applicants have amended claim 14 to overcome the Examiner's rejection.

Claim Rejections Under 35 U.S.C. §102

The Examiner rejected claims 5 and 14 under 35 U.S.C. § 102 as being anticipated by Adams et al. The Office Action asserts that Adams et al. teaches pharmaceutical compositions comprising effective amounts of either sodium nitroprusside, 3-morpholinosydnonimine, S-nitroso-N-acetyl penicillamine (SNAP) and a pharmaceutically acceptable carrier. Applicant respectfully traverses this rejection

Claim 5 has been canceled. Claim 14 has been amended to more clearly define the invention claimed.

We understand that Adams is asserted to disclose the use of sodium nitroprusside, 3-morpholinosydnonimine, and S-nitroso-N-acetyl penicillamine for establishing normal vascular tone in affected regions of circulation. Adams does not teach or suggest a pharmaceutical composition wherein the nitric oxide donor is structurally adapted to preferentially release nitric oxide in the liver. Furthermore, Adams acknowledges the problem of directing nitric oxide or nitric oxide donors to certain major organs, including the liver, without eliciting unwanted side effects such as systemic vasodilation (column 2,

last full paragraph) and the fact that a satisfactory solution has yet to be discovered.

Thus, Adams does not anticipate but teaches away from the claimed subject matter.

A person skilled in the art, in view of Adams, would not be motivated to use nitric oxide donors to selectively target the liver. As such, it is respectfully submitted that claim 14 as currently amended, is not anticipated by Adams.

The Examiner rejected claims 5 and 14 under 35 U.S.C. § 102 as being anticipated by Papandreaou et al. The Office Action asserts that Papandreaou et al. teaches sodium nitroprusside is a generally approved nitric oxide donor pharmaceutically. Furthermore, other nitric oxide pharmaceuticals include sodium nitrite and the Syndonimines. Applicant respectfully traverses this rejection.

Claim 5 has been canceled. Claim 14 has been amended to more clearly define the invention claimed.

We understand that Papandreaou is asserted to only disclose the mere existence of nitric oxide pharmaceuticals. It does not disclose or suggest a pharmaceutical composition wherein the nitric oxide donor is structurally adapted to preferentially release nitric oxide in the liver. Accordingly, Papandreaou does not anticipate the subject matter of claim 14 as currently amended.

The Examiner rejected claims 5 and 14 under 35 U.S.C. § 102(e) as being anticipated by Salzman et al. The Office Action asserts that Salzman et al. teach pharmaceutical compositions comprising effective amounts of nitric oxide donor compounds. The Office Action stated that with respect to the claimed intended use of the composition to increase nitric oxide in the liver of a patient, the intended use of the a claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The Office Action took the position that the prior art discloses nitric oxide donor compositions capable of increasing nitric oxide in the liver of the patient. Applicant respectfully traverses this rejection.

Claim 5 has been canceled. Claim 14 has been amended to more clearly define the invention claimed.

We understand that Salzman is asserted to disclose nitric oxide pharmaceuticals which are delivered across a mucosal membrane. More specifically, we understand that Salzman is asserted to disclose the use of nitric oxide pharmaceuticals for use in treating pulmonary hypertension, male impotence and vaginal dryness. Salzman does not teach or suggest a pharmaceutical composition wherein the nitric oxide donor is adapted to preferentially release nitric oxide in the liver. Furthermore, the present invention is structurally different from the prior art. Claim 14 has been amended to clarify the fact that nitric oxide donors of the present invention are "structurally adapted" to target the liver. Accordingly, Salzman does not anticipate the subject matter of claim 14 as currently amended.

The Examiner rejected claim 15 under 35 U.S.C. § 102(b) as being anticipated by either Klokke-Bethke et al. (U.S. Patent No. 5,370,862) or Veronesi et al. (U.S. Patent No. 5,580,576). The Office Action asserts that Klokke-Bethke et al. disclose pharmaceutical aerosol sprays containing effective amounts of the nitric oxide agonist, nitroglycerin. The Office Action stated that Veronesi et al. disclose pharmaceutically/storage stable, water resistant formulations comprising nicorandil (a nitric oxide agonist) and pharmaceutically acceptable excipients. The Office Action stated that with respect to the claimed intended use of the composition to increase insulin sensitivity, the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The Office Action took the position that the prior art discloses nitric oxide agonist compositions capable of increasing insulin sensitivity. Applicant respectfully traverses this rejection.

The present invention is structurally different than the cited prior art. Claim 15 has been amended to clarify the fact that nitric oxide agonist of the present invention is "structurally adapted" to selectively target nitric oxide release in the liver. Neither Klokke-Bethke nor Veronesi teach or disclose a pharmaceutical composition wherein the nitric oxide agonist is structurally adapted to preferentially release nitric oxide in the

liver. Accordingly, claim 15 as currently amended is not anticipated by Klokke-Bethke or Veronesi.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 16-18 under 35 U.S.C. § 103(a) as being unpatentable over Adams et al. or Papandreou et al. or Salzman et al. or Klokke-Bethke et al. or Veronesi et al. The Office Action asserts that while these references do not specifically disclose formulating the compositions into a kit containing structural material, it would be obvious to one of ordinary skill in the art to modify the compositions of the prior art into kits since one of ordinary skill in the art would reasonably expect kit compositions to be a useful means for packaging pharmaceutical compositions for subsequent use in therapeutic treatment. The Office Action took the position that the instructional materials describing instructions for using the nitric oxide donor or agonist compositions relate to intended use and does not further limit or define the overall pharmaceutical compositions. Applicant respectfully traverses this rejection.

Claims 16-18 are not directed to a composition. Rather, claims 16-18 are directed to a kit that includes instructions. None of the cited prior art teaches or suggests a kit containing either a nitric oxide donor or agonist, with instructions for use in treating insulin resistance. Accordingly, it would not be obvious to a person skilled in the art to package said compositions into a kit with the claimed instructions.

Based on the forgoing, Applicant respectfully submits that claims 16-18 are not obvious in view of the cited prior art.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly solicited.

Respectfully submitted,

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